



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,836	10/29/2003	Clyde G. Ritter	1678	9296
27727	7590	08/10/2005	EXAMINER	
PEDERSEN & COMPANY, PLLC P.O. BOX 2666 BOISE, ID 83701			CORRIGAN, JAIME W	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



## Office Action Summary

Application No.

10/697,836

Applicant(s)

RITTER, CLYDE G.

Examiner

Jaime W. Corrigan

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-28 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10-29-03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 25-28, drawn to a method of making a lifter, classified in class 29, subclass 888.03.
- II. Claims 1-24, drawn to a lifter, classified in class 123, subclass 90.48.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by a materially different process such as arc welding.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Barbara Pedersen on 12 July 2005 a provisional election was made without traverse to prosecute the invention of Group II, claims 1-24. Affirmation of this election must be made by applicant in replying to this

Art Unit: 3748

Office action. Claims 25-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Lesher (PN 3,683,876).

Regarding claim 1 Lesher discloses a lifter body comprising a first (See Figure 5, Column 2 Lines 35-41, Column 3 Lines 10-14, 59-63) metal, the lifter body being adapted for connection to a push rod (See Figure 5, Abstract, Column 2 Lines 17-26); a face pad (See Figure 5 (74)), comprising a second (See Column 3 Lines 14-19) metal different from the first metal, attached to the lifter body for contacting a cam (See Column 3 Lines 8-10); a connector material that attaches said face pad to the lifter body, the connector material comprising at least one metal that is different from said first metal and said second metal (See Column 3 Lines 59-68).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leshner (PN 3,683,876) in view of Taniguchi et al. (PN 5,253,418).

Leshner discloses the invention as recited in claim 1 above, however, fails to disclose the connector material comprises silver and silver and copper.

Taniguchi teaches that it is conventional in the art to utilize the connector material comprises silver (See Column 3 Lines 7-11) and silver and copper (See Column 3 Line 12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the silver and silver and copper connector material taught by Taniguchi in the Leshner device since it would improve the connection between the ceramic plate and the tappet main body.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leshner (PN 3,683,876) in view of Taniguchi et al. (PN 5,253,418) and Tsuno (PN 4,740,429).

Leshner discloses the invention as recited in claim 1 above, however, fails to disclose a connector material with layers of copper alloy or a copper, zinc, cadmium center between layers of silver.

Taniguchi discloses the connector material comprises a silver and copper alloy (See Column 3 Lines 7-19).

Tsuno discloses joining a ceramic member and metallic member with a layer of nickel, a layer of silver-copper alloy and a layer of titanium (See Column 4 Lines 65-68, Column 5 Lines 1-30).

Neither Taniguchi nor Tsuno disclose expressly a connector material with a copper alloy between two silver layers or a connector material with a copper, zinc, and cadmium center between layers of silver.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to connect a lifter body made of one metal and a face pad made of a different metal using layers of copper alloy, silver and copper, zinc, and cadmium because Applicant has not disclosed that a connector material comprising a copper alloy layer between two silver layers or a copper, zinc, and cadmium center between layers of silver provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with an (Taniguchi) Ag-Cu-Ti alloy or (Tsuno) layers of nickel, Ag-Cu and titanium as connector materials because they are easy to produce and have high joint strength.

Accordingly it would have been an obvious matter of design choice to modify Taniguchi and Tsuno to obtain the invention as specified in claims 4-5.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leshner (PN 3,683,876) in view of Taniguchi et al. (PN 5,253,418) and Tsuno (PN 4,740,429) as applied to claims 4-5 above, and further in view of Behnke et al. (PN 4,768,476).

Taniguchi and Tsuno disclose the invention as recited in claims 4-5 above, however, fail to disclose the face pad comprises a metal carbide or that the metal carbide is tungsten carbide.

Behnke teaches that it is conventional in the art to utilize the face pad comprises a metal carbide (See Column 2 Lines 13-14) material and the metal carbide material comprises tungsten carbide (See Column 2 Lines 13-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the metal carbide and tungsten carbide face pads taught by Behnke in the Taniguchi device since it would improve face pad wear resistance.

Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leshner (PN 3,683,876) in view of Taniguchi et al. (PN 5,253,418) and Tsuno (PN 4,740,429) as applied to claims 6-8 above, and further in view of Behnke et al. (PN 4,768,476).

Behnke discloses the invention as recited in claims 6-8 above, however, fails to expressly disclose the various particular types of carbide materials.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to replace tungsten carbide with other types of carbide materials because Applicant has not disclosed that the other types of carbide provide an advantage, are used for a particular purpose, or solve a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with tungsten carbide because it provides excellent wear resistance.

Accordingly, it would have been an obvious matter of design choice to modify Behnke to obtain the invention as specified in claims 9-15.

Claims 16, 19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. (PN 5,253,418) in view of Tsuno (PN 4,740,429).

Taniguchi discloses a lifter body (See Figure 1 (2a)) made of steel (See Column 2 Lines 26-33); a face pad (See Figure 1 (3)) for contacting (See Column 2 Lines 49-52) a cam; a copper alloy (See Column 3 Lines 7-19) connector material between the body and face pad.

Taniguchi fails to disclose the connector material comprising three layers, which are first and second layers comprising silver, and a third layer comprising copper between said first and second layers.



Tsuno teaches that it is conventional in the art to utilize the connector material comprising three layers, which are first and second layers comprising titanium (See Figure 1 (2)) and nickel (See Figure 1 (5)) and a third layer comprising Ag-Cu alloy (See Figure 1 (1)) between said first and second layers.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to connect the steel lifter body and face pad with a layer of copper 10-14 thousandths of an inch thick between silver layers 2-8 thousandths of an inch thick instead of the copper alloy (Taniguchi) and the layers of titanium, nickel and silver-copper (Tsuno) because Applicant has not disclosed that connecting the steel lifter body and face pad with a layer of copper 10-14 thousandths of an inch thick between silver layers 2-8 thousandths of an inch thick provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the copper alloy (Taniguchi) and the layers of titanium, nickel and silver-copper (Tsuno) because the combination would provide superior mechanical strength.

Accordingly, it would have been an obvious matter of design choice to modify Taniguchi and Tsuno to obtain the invention as specified in claims 16, 19 and 21.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi in view of Tsuno as applied to claim 16 above, and further in view of Suzuki et al. (PN 5,168,841) and Tsuno (PN 4,740,429).

Taniguchi in view of Tsuno discloses the invention as recited in claim 16 above, however, fails to disclose the thickness of the face pad and connector material.

Suzuki discloses the face pad is 3 millimeters thick (See Column 4 Lines 19-23).

Tsuno discloses the connector material is layered (See Column 5 Lines 19-29).

Neither Suzuki nor Tsuno discloses expressly the face pad is 75-150 thousandths of an inch thick or the connector material is 10-20 thousandths of an inch thick.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to change the thickness of the face pad and specify the thickness of the connector material of the lifter because Applicant has not disclosed that the face pad is 75-150 thousandths of an inch thick or the connector material is 10-20 thousandths of an inch thick provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the 3 millimeter thick face pad (See Column 4 Lines 19-23) of Suzuki and the layered connector material of Tsuno (See Column 5 Lines 19-29) because the face pad of Suzuki is adequately durable and the connector material of Tsuno has superior joint strength.

Accordingly, it would have been an obvious matter of design choice to modify Suzuki and Tsuno to obtain the invention as specified in claim 17.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi in view of Tsuno as applied to claim 16 above, and further in view of Goloff (PN 4,366,785).

Taniguchi in view of Tsuno discloses the invention as recited in claim 16 above, however, fails to disclose the body comprises cast iron.

Goloff teaches that it is conventional in the art to utilize the body comprises cast iron (See Figure 1 (12), Column 2 Lines 28-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the cast iron body taught by Goloff in the Taniguchi and Tsuno devices since it would improve tappet main body durability.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi in view of Tsuno as applied to claim 16 above, and further in view of Behnke et al. (PN 4,768,476).

Taniguchi in view of Tsuno discloses the invention as recited in claim 16 above, however, fails to disclose the face pad is tungsten carbide.

Behnke teaches that it is conventional in the art to utilize the face pad is tungsten carbide (See Column 2 Lines 13-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the tungsten carbide face pad taught by Behnke in the Taniguchi and Tsuno devices since it would improve face pad wear resistance.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. (PN 5,253,418) in view of Behnke et al. (PN 4,768,476).

Taniguchi discloses a body comprising a ferrous alloy (See Column 2 Lines 26-33) and a connector between the body and the face pad, the connector comprising silver (See Column 3 Lines 7-19).

Taniguchi fails to disclose a face pad comprised of tungsten carbide.

Behnke teaches that it is conventional in the art to utilize a face pad for contacting a cam (See Abstract, Column 2 Lines 13-27), the face pad comprising tungsten carbide (See Column 2 Lines 13-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the tungsten carbide face pad taught by Behnke in the Taniguchi device since it would improve face pad longevity.

Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. (PN 5,253,418) in view of Behnke et al. (PN 4,768,476) as applied to claim 22 above, and further in view of Tsuno (PN 4,740,429).

Taniguchi discloses the invention as recited in claim 22 above and further discloses a connector material of a silver-copper-nickel-titanium alloy.

Tsuno discloses a connector material of layers of nickel, silver-copper alloy and titanium.

Neither Taniguchi nor Tsuno discloses said connector comprises silver, copper, cadmium, zinc and nickel or a central layer of a mix of copper, cadmium, zinc and nickel between layers of silver.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to add cadmium and zinc to the connector material or to add cadmium and zinc to a central layer mix between layers of silver because Applicant has not disclosed that said connector comprises silver, copper, cadmium, zinc and nickel or a central layer of a mix of copper, cadmium, zinc and nickel between layers of silver provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a connector material of a silver-copper-nickel-titanium alloy and a connector material of layers of nickel, silver-copper alloy and titanium because the said connector materials provides a high joint strength.

Accordingly, it would have been an obvious matter of design choice to modify Taniguchi and Tsuno to obtain the invention as specified in claims 23-24.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mori et al. (PN 6,073,345), Matsui et al. (PN 4,667,627) disclose similar valve lifters.

Any inquiry concerning this communication from the Examiner should be directed to Examiner Jaime Corrigan whose telephone number is (571) 272-4858. The Examiner can normally be reached on Monday – Friday from 8:30 a.m. – 6:00 p.m. 2<sup>nd</sup> Friday off.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (703) 872-9306.

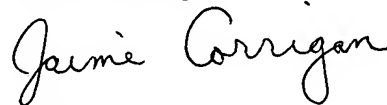
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3700.

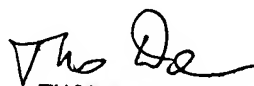
JC

August 04, 2005

Jaime Corrigan



Patent Examiner  
Art Unit 3748



THOMAS DENION  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700